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ABSTRACT

The parents of 64 children (ages 5 to 12) with attention deficit hyperactivity disorder (ADHD), other psychiatric diagnoses, and no history of school or home problems reported the frequency of their children's sleep disturbances in a 40-item questionnaire. Retrospective data were gathered by asking parents to report on the child's behaviors for the 6 months prior to an initial telephone interview. Parents were then instructed to spend the next 2 weeks observing the behaviors, and subsequently were interviewed to get their perceptions of the 2-week period. This prospective part of the study was then continued for another 2 weeks, at the end of which parents again reported the frequencies of sleep-related behaviors. Results suggest that parents of clinical children exaggerate the incidence of behavioral problems in their children when their reports are taken with retrospective methodology. Findings also indicate that such reports of the parents of ADHD children may be subject to greater distortion than those of children with other psychiatric diagnoses. (JDD)

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Differences in Retrospective and Prospective Parental Reports of Children's Behaviors

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Abstract

The parents of children with attentional deficit hyperactivity disorder (ADHD), other psychiatric diagnoses, and no history of school or home problems reported the frequency of their children's sleep disturbances in a retrospective 40-item questionnaire. The parents then observed their children's behaviors for the next month and subsequently responded to the same questionnaire to provide prospective reports. Sign tests showed that parents of both groups of clinical children reported higher frequencies of sleep disturbances in the retrospective phase of the study, and this effect was especially strong for the ADHD group.

Differences in Retrospective and Prospective Parental Reports of Children's Behaviors

As an alternative to costly longitudinal studies, the developmental antecedents of current behaviors are frequently assessed by using a retrospective questionnaire methodology. The utility of this approach, however, is compromised by the possibility that the accuracy of autobiographical recall is reduced by factors outside the awareness of the respondent (Groves, 1987). Although retrospective questionnaires and prospective reports can result in similar findings (e.g., Howell et al., 1987), variables that influence the content of elicited memories can distort the results of retrospective approaches (Loftus & Fathi, 1985; Parlee, 1982).

If unconscious factors such as social approval motivation, negative or positive halo effects, or selective attending do affect the accuracy of recall, it is possible that the retrospective reports of individuals confronting serious personal or family problems may be more subject to these distortions than those of nonclinical respondents. In fact, the existence of a widely held stereotype of the clinical

condition being studied could bias observer reports of clinical behaviors in the direction of the stereotype (Parlee, 1974). We were able to examine the hypothesis that the differences between retrospective and prospective reports would be larger in clinical than nonclinical samples in a study of parental reports of sleep disturbances of their children.

Method

Participants

The participants were the mothers, with the exception of one father, of 64 5- to 12-year-old children occurring in one of three diagnostic groups: (a) those with attention deficit hyperactivity disorder (ADHD, n = 22), (b) those with other psychiatric diagnoses (OPD, n = 21), and (c) nonclinical controls (n = 21). The clinical families were recruited through a child guidance center and two pediatric specialists and were diagnosed on the basis of a complete clinical assessment; the control children were obtained from a summer school program and had no history of school or home problems.

Instrument

Parent's reports of the sleep-related behaviors of their children were obtained by means of a modification

of the questionnaire developed by Simonds and Parraga (1984) in their study of sleep problems in children and adolescents. Our questionnaire consisted of 40 descriptors of behaviors occurring just before, during, or just after sleep. Thirty-seven of the items elicited parental reports of frequencies of their children's behaviors, and the parents indicated the number of times per week each behavior occurred. Examples of such items are the number of times the child was reluctant to go to sleep, awakened during the night, and awakened in a bad mood. Each of these 37 items was constructed such that higher reported scores were associated with difficulties in sleep-related behaviors. The other three items were scored as a duration instead of a frequency; these items were the number of hours to sleep onset, the number of hours awake after first going to sleep, and total sleep hours.

Procedure

The questionnaire was completed three times by each parent through telephone interviews. The retrospective data were the reports of the child's behaviors for the 6 months prior to the first interview. The parents were then instructed to spend the next 2 weeks observing the behaviors about which they had just been asked. At the

end of this period, they were interviewed again to get their perceptions for this 2-week period. This prospective part of the study was then continued for another 2 weeks, at the end of which the parents again reported the frequencies of sleep-related behaviors for their child during the prior 2 weeks. The data from the two measurements in the prospective phase of the study were then averaged to produce a current 1-month sample of behavior.

Results

The means of the 37 frequency items in the retrospective data were highly correlated with analogous means of the prospective data in each of the three samples; the Pearson *r*s were .94, .87, and .94 for the ADHD, OPD, and control groups, respectively. (Due to the dissimilarity of the frequency and duration scores, the three items measured in hours were not included in these correlations.) The item frequencies, therefore, had similar rankings across the retrospective and prospective methodologies.

To detect any overall pattern of bias in the retrospective methodology, the normal approximation to the binomial, with correction for continuity, was applied to a comparison of the retrospective and

prospective data in a sign test (Siegel, 1956). First, the item means for both data sets were expressed to the nearest two decimal places. The mean response for each item was then compared across the two methodologies. If the item mean in the retrospective phase was larger than the mean for that same item in the prospective phase, a plus was recorded for the item. If the prospective mean was the higher of the two, a minus was recorded for the item. An exception to this procedure occurred for the item assessing total sleep hours; since a small total sleep duration would be suggestive of more sleep problems, a plus was recorded for this item if the prospective mean was higher than the retrospective.

For the ADHD group, the retrospective means were higher for 36 out of the 38 items on which ties did not occur; i.e., there were two items having retrospective and prospective means identical to two decimal places. The directionality of these mean differences was highly significant, $z = 5.36$, $p = .0000005$. Similarly, for the OPD group, 26 of the 35 untied items had higher retrospective means, $z = 2.03$, $p = .0424$. Twenty-one of the 32 untied items had higher retrospective than prospective means for the nonclinical controls, $z = 1.59$, $p = .1118$. There was, therefore, a significant

tendency for the parents of both groups of clinical children to report more frequent sleep problems when the retrospective methodology was used. This retrospective bias was especially consistent for the parents of the ADHD group.

Discussion

These results suggest the operation of one or more factors that lead parents of clinical children to exaggerate the incidence of behavioral problems in their children when their reports are taken with retrospective methodology. The findings also indicate that such reports of the parents of ADHD children may be subject to greater distortion than those of children with other psychiatric diagnoses. The reasons for this higher frequency of behavioral problems reported in the retrospective methodology are not clear from the current data. In a negative halo effect, the higher frequency of problem behaviors associated with daytime activities of the clinical children may have generalized to the parent's recollections of their nighttime behaviors. Additionally, since the parents of the clinical children were seeking professional help for their children, the parent's retrospective reports may have been affected by unconscious motivations to exaggerate the child's

problems so that help might more likely result. If clinical stereotypes can indeed affect autobiographical recall (Parlee, 1974), then the rather remarkable difference in directional bias between the ADHD and OPD groups may to some degree be a result of the existence of a well-known stereotyped syndrome of the ADHD child.

While school psychologists and other professionals who work with these children should be aware of the possibility of negative biases in the retrospective reports of parents, we must add that in our original study of the sleep behaviors of these children, the data from the retrospective and prospective phases were analyzed separately. The findings resulting from the two analyses were very similar and would have led to the same conclusions had either phase been reported separately. Therefore, while professionals in their work with individual families should be sensitive to negative retrospective biases of parental reports, our findings suggest that, at least across a group of children, these biases represent an exaggeration of trends that occur in daily parental observations of their children.

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Footnote

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